

IN THE CLAIMS

The following is a complete listing of the claims, and replaces all earlier versions and listings.

1. (Previously Presented) An image processing apparatus comprising:

input means for inputting image data;

processing means for quantizing error-correction data obtained by adding error data to the image data input by said input means so that data having at least two levels are generated; and

allocation means for allocating the error data generated when the quantization is performed to image data which are not quantized,

wherein, in response to a predetermined level of the error-correction data, said processing means uses a different processing from fundamental processing, and outputs, as a result of quantization, a different level from a level resulting from fundamental processing for said predetermined level so as to prevent a pseudocontour from being generated, the different processing including adding noise components to output data to achieve the different level.
2. (Previously Presented) An image processing apparatus according to Claim 1, wherein said allocation means allocates, as the error data, the difference between said error-correction data and the quantized data having a different level from a level resulting from fundamental processing.

3. (Previously Presented) An image processing apparatus according to Claim 1, further comprising an output means for outputting, based on the data having at least two levels from said processing means, an image in which the sizes of dots are controlled.

4. (Previously Presented) An image processing apparatus according to Claim 3, wherein said output means uses ink-jet printing to record an image.

5. (Previously Presented) An image processing method comprising:
an input step, of inputting image data;
a processing step, of quantizing error-correction data obtained by adding error data to the image data input in said input step so that data having at least two levels are generated; and
an allocation step, of allocating the error data generated when the quantization is performed to image data which are not quantized,
wherein, in response to a predetermined level of the error-correction data, in said processing step, there is used a different processing from fundamental processing, and a different level from a level resulting from fundamental processing for said predetermined level is output as a result of quantization so as to prevent a pseudocontour from being generated, the different processing including adding noise components to output data to achieve the different level.

6. (Previously Presented) An image processing method according to Claim 5, wherein, in said allocation step, the difference between the error-correction data and the quantized data having a different level from a level resulting from fundamental processing is allocated as the error data.

7. (Previously Presented) An image processing method according to Claim 5, further comprising the step of outputting, based on the data having at least two levels from said processing step, an image in which the sizes of dots are controlled.

8. (Previously Presented) An image processing method according to Claim 5, wherein, in said output step, ink-jet printing is used to record an image.

9. (Previously Presented) An image processing method for allocating, as a quantized error, the difference between an input image density and a quantized image density to surrounding pixels around a pixel of interest, and setting the average of the quantized densities to be equal to the input image density, said image processing method comprising the steps of:

finding error-correction data by adding the input image density and error data allocated from the surrounding pixels; and

outputting, based on the error-correction data obtained in said finding step, error data and predetermined quantized data for the surrounding pixels, which are prestored in a table,

wherein, in response to a predetermined level of the error-correction data, in said outputting step, a different level from a level resulting from fundamental processing for said predetermined level is output so as to prevent a pseudocontour from being generated, the different level being such as to reflect addition of noise components to the output data to achieve the different level.

10. (Canceled)